

Notice of Allowability

Application No.

10/706,991

Examiner

Jacques Veillard

Applicant(s)

BEM ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to the applicant's amendment filed on 11/30/2006.
2. ☒ The allowed claim(s) is/are 1, 3-21, 23, 24, 40, 47, 48 (Renumbered claims 1-25).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 01/04/2006
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20060105.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

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DETAILED ACTION

1. This action is responsive to the applicant's amendment filed on 11/30/2006.
2. Claims 25-39, 42-46 have been canceled, and claims 47-48 have been added.
3. Claims 1-24, 40-41, and 47-48 are pending and presented for examination.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Paul A. Harrity (Reg. No. 39,574) the undersigned for applicant(s) on January 05, 2007.

The application has been amended as follows:

In the claims:

Please amend the claims as follows:

1. (Currently Amended) A computer implemented method, comprising:
creating a ranking model that predicts a likelihood that a document will be
selected by;

storing information associated with a plurality of prior searches

determining a prior probability of selection based, at least in part, on the

information associated with the prior searches, and

generating the ranking model based, at least in part on the prior probability of selection;
training the ranking model using a data set that includes approximately tens of millions of instances;
identifying documents relating to a search query;
scoring the documents based, at least in part, on the ranking model;
forming search results for the search query from the scored documents; and
outputting the search results.

2. (Canceled)

3. (Currently Amended) The method of claim [[2]] 1, wherein the information associated with the prior searches includes, for each of a plurality of documents associated with the prior searches, at least one of a position occupied by the document within prior search results, a score assigned to the document, or a number of documents listed above the document in the prior search results that were selected.

16. (Currently Amended) A system implemented within one or more computer devices, comprising:

means for receiving a search query;
means for identifying documents relating to the search query;
means for ranking the documents based, at least in part, on a ranking model

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trained on a large data set that includes approximately millions of features, the means for ranking includes:

means for determining a prior probability of selection corresponding to the search query and one of the identified documents, and

means for determining a rank for the one document based, at least in part, on the determined prior probability of selection;

means for forming search results for the search query from the ranked documents;

and

means for outputting the search results.

17. (Currently Amended) A system, comprising:

a repository configured to store information corresponding to a plurality of prior searches; and

a server configured to:

receive a search query from a user,

identify documents corresponding to the search query,

rank the identified documents based, at least in part, on a ranking model

that includes rules that maximize a likelihood of the repository, when ranking the identified documents, the server is configured to;

determine a prior probability of selection corresponding to the search query and one of the identified documents, and

determine a rank for the one document based, at least in part, on

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the determined prior probability of selection, and
output the ranked documents.

22. (Canceled)

23. (Currently Amended) The system of claim ~~[[22]]~~ 17, wherein when determining a rank four the one document, the server is configured to use the determined prior probability of selection as one of a plurality of factors in determining the rank for the one document.

40. (Currently Amended) A method, comprising:

receiving a search query;

identifying documents relating to the search query;

determining prior probabilities of selecting each of the documents, where the prior probability of selecting one of the documents is determined based, at least in part, on data regarding at least one of a position of the document within search results, a prior score assigned to the document, or a number of documents above the document in the search results that were selected;

determining a score for each of the documents based, at least in part, on the prior probability of selecting the document;

generating search results for the search query from the scored documents, and

outputting the search results.

41. (Canceled)

Information Disclosure Statement

5. The information disclosure statement (IDS) submitted on January 04, 2006 complies with the provisions of 37 CFR 1.97. Accordingly, it has been placed in the application file. The information referred to therein has been considered as to the merits.

Allowable Subject Matter

6. The amendment filed by the applicant(s) on November 30, 2006 overcomes all the previously rejections set forth in this application.

7. In view of Applicant's amendment and remarks, filed November 15, 2006, Examiner has fully considered the amendment and remarks and believes they are deemed to be persuasive.

8. Claims 1, 3-21, 23, 24, 40, 47 and 48 (Renumbered claims 1-25) are allowed in light of Applicants' arguments and in light of prior art made of record.

Reasons for Indicating Allowable Subject matter

The following is an examiner's statement of reasons for allowance: The examiner, upon searching a variety of databases, respectfully submits that -- storing, information associated with a plurality of prior searches determining a prior probability of selection based, at least in part, on the information associated with the prior searches, and generating the ranking model based, at least in part on the prior probability of selection-- as embodied in the independent claims 1, 16,

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7, 40, 47 and 48 in context with the other limitations of the claims was not disclosed by, would not have been obvious over, nor would have been fairly suggested by the prior art of record.

The other dependent claims 3-15, 18-21, 23 and 24, being further limiting to the independent claims 1 and 17, definite and fully enabled by the Specification are also allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacques Veillard whose telephone number is (571) 272-4086. The examiner can normally be reached on Mon. to Fri. from 9 AM to 4:30 PM, alt. Fri. off..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on (571) 272- 4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

J.V

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Jacques Veillard

Patent Examiner TC 2100

January 05, 2007



CHETA ROBINSON
PRIMARY EXAMINER